The term **Anatomy** comes from Late 1300's:

Anatomia (Latin) and Anatome (Greek)

ana meaning "up"

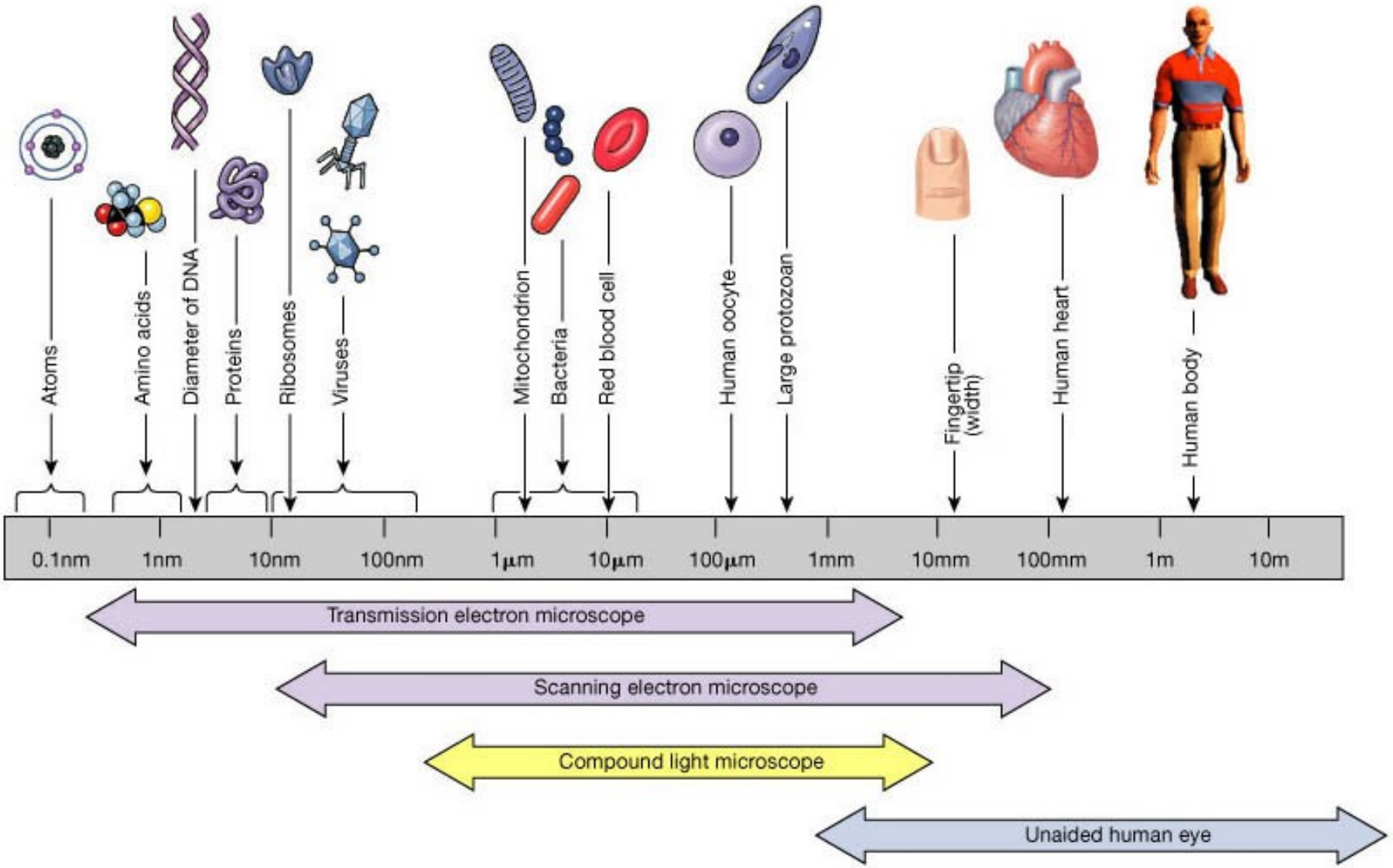
tomos (or temnein) which means "to cut"

Together this gives "a cutting up" (Dissection).

Anatomy is considered the "Study or knowledge of the structure (form) and function of the human body".

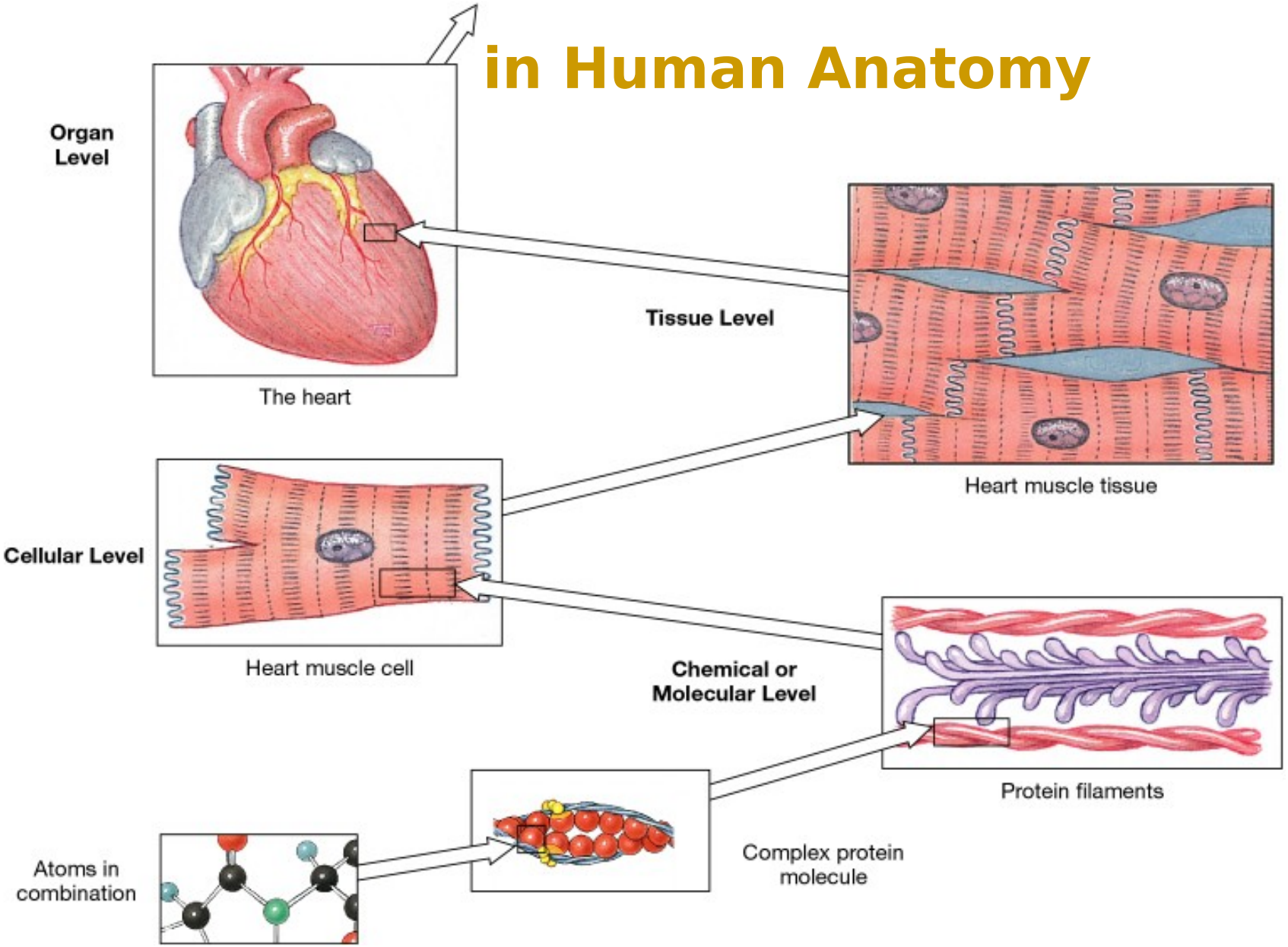
tymology (word origin) is very important is understanding anatomical t

Microscopic Anatomy Gross Anatomy



Levels of Organization

in Human Anatomy

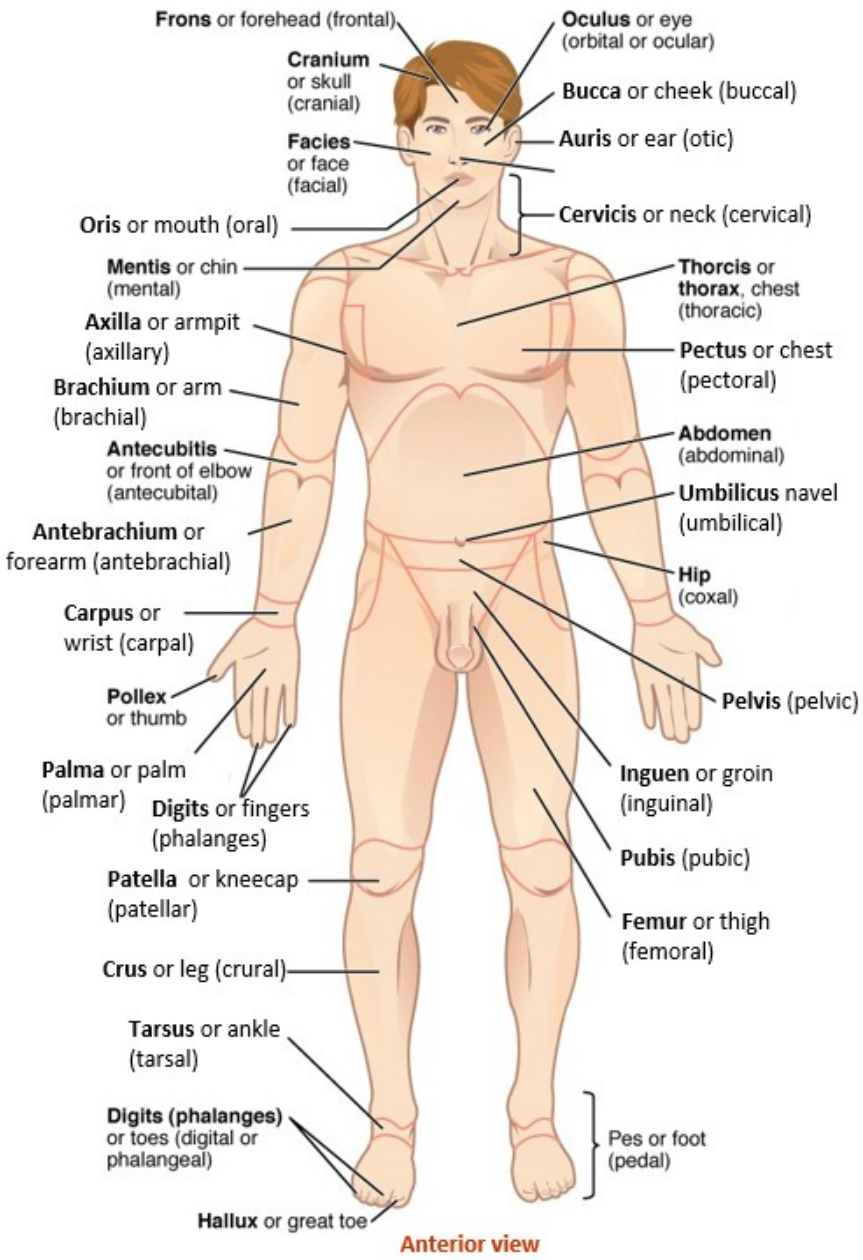


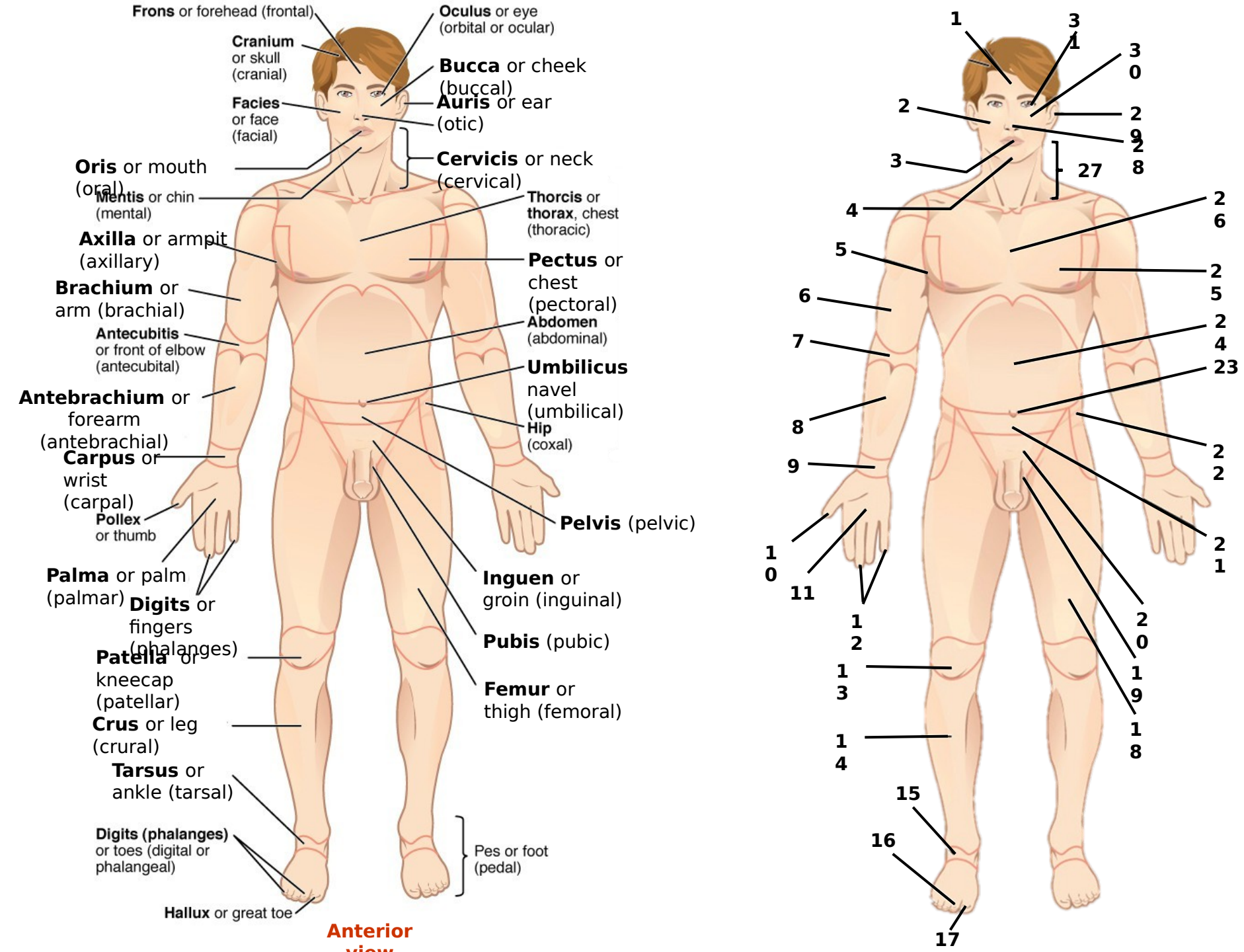
Organ Systems of the Body

Organ System		Major Functions
	Integumentary system	Protection from environmental hazards; temperature control
	Skeletal system	Support, protection of soft tissues; mineral storage; blood formation
	Muscular system	Locomotion, support, heat production
	Nervous system	Directing immediate responses to stimuli, usually by coordinating the activities of other organ systems
	Endocrine system	Directing long-term changes in the activities of other organ systems
	Cardiovascular system	Internal transport of cells and dissolved materials, including nutrients, wastes, and gases

Organ System		Major Functions
	Lymphatic system	Defense against infection and disease
	Respiratory system	Delivery of air to sites where gas exchange can occur between the air and circulating blood
	Digestive system	Processing of food and absorption of organic nutrients, minerals, vitamins, and water
	Urinary system	Elimination of excess water, salts, and waste products; control of pH
	Reproductive system	Production of sex cells and hormones

Anatomical Regional Terms




Frons or forehead (frontal)
Oculus or eye (orbital or ocular)
Cranium or skull (cranial)
Bucca or cheek (buccal)
Facies or face (facial)
Auris or ear (otic)
Oris or mouth (oral)
Cervicis or neck (cervical)
Mentis or chin (mental)
Thorcis or thorax, chest (thoracic)
Axilla or armpit (axillary)
Pectus or chest (pectoral)
Brachium or arm (brachial)
Abdomen (abdominal)
Antecubitis or front of elbow (antecubital)
Umbilicus navel (umbilical)
Antebrachium or forearm (antebrachial)
Hip (coxal)
Carpus or wrist (carpal)
Pollex or thumb
Pelvis (pelvic)
Palma or palm (palmar)
Inguen or groin (inguinal)
Digits or fingers (phalanges)
Pubis (pubic)
Patella or kneecap (patellar)
Femur or thigh (femoral)
Crus or leg (crural)
Tarsus or ankle (tarsal)
Digits (phalanges) or toes (digital or phalangeal)
Pes or foot (pedal)
Hallux or great toe
Anterior view
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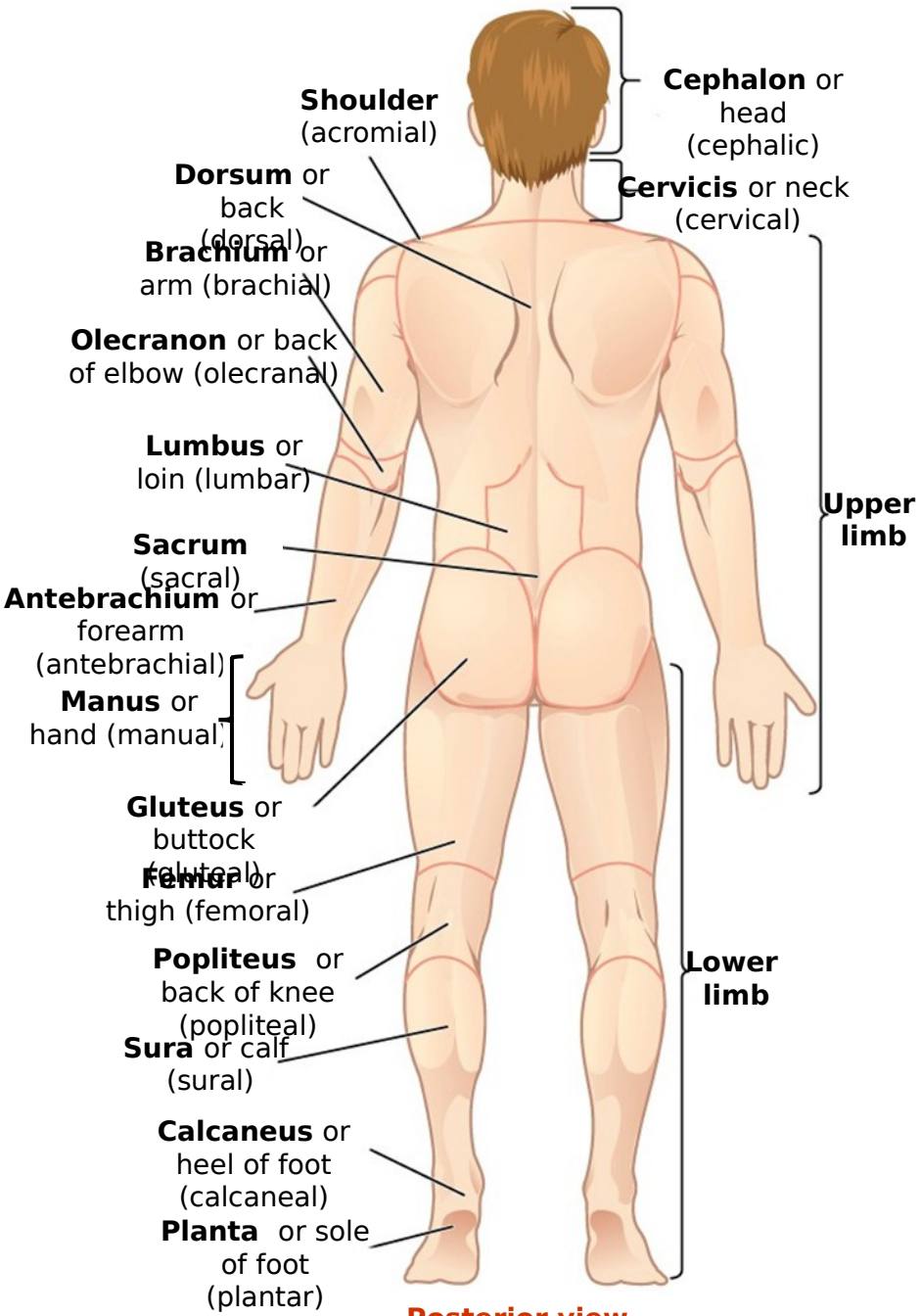
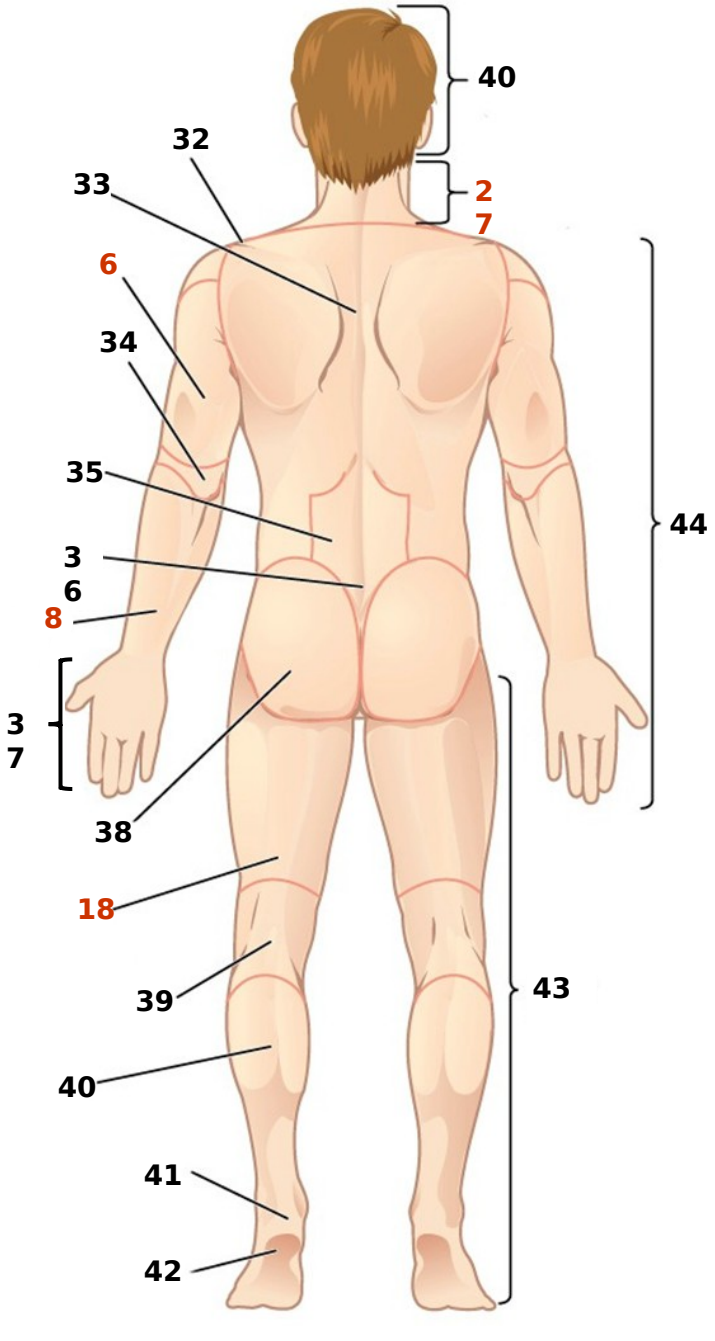

Shoulder (acromial)
Cephalon or head (cephalic)
Dorsum or back (dorsal)
Cervicis or neck (cervical)
Brachium or arm (brachial)
Olecranon or back of elbow (olecranal)
Lumbus or loin (lumbar)
Upper limb
Sacrum (sacral)
Antebrachium or forearm (antebrachial)
Manus or hand (manual)
Gluteus or buttock (gluteal)
Femur or thigh (femoral)
Lower limb
Popliteus or back of knee (popliteal)
Sura or calf (sural)
Calcaneus or heel of foot (calcaneal)
Planta or sole of foot (plantar)

Posterior view

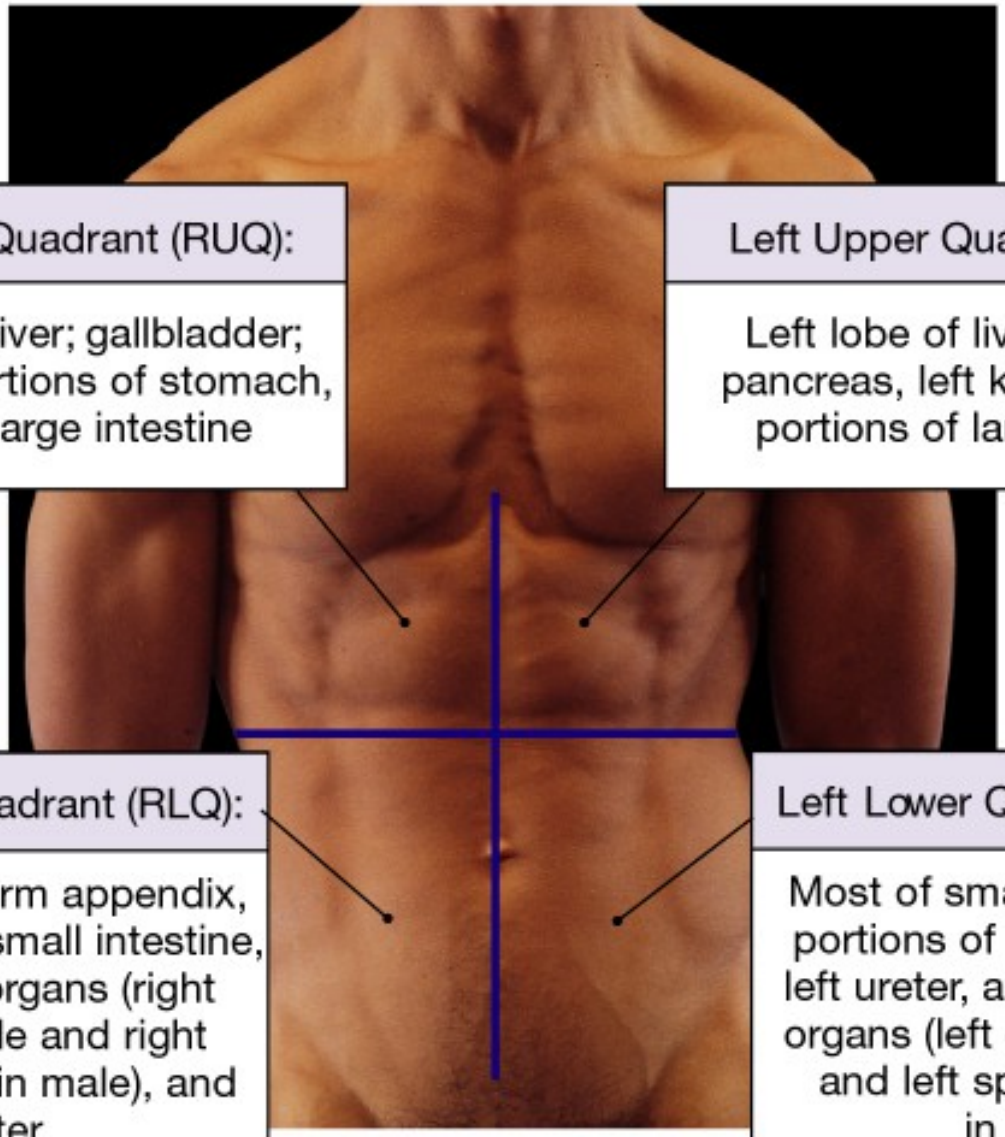


Posterior view

Selected anatomical regions and commonly used “layperson’s” terminology.

Anatomical Landmarks	Common Term
1. Cranial	
2. Cervical	
3. Acromial	
4. Thoracic	
5. Abdominal	
6. Gluteal	
7. Inguinal	
8. Axillary	
9. Brachial	
10. Olecranon / Antecubital	
11. Antebrachium	
12. Carpal	
13. Manual	
14. Digits (Phalanges)	
15. Femoral	
16. Patellar	
17. Popliteal	
18. Crural	
19. Sural	

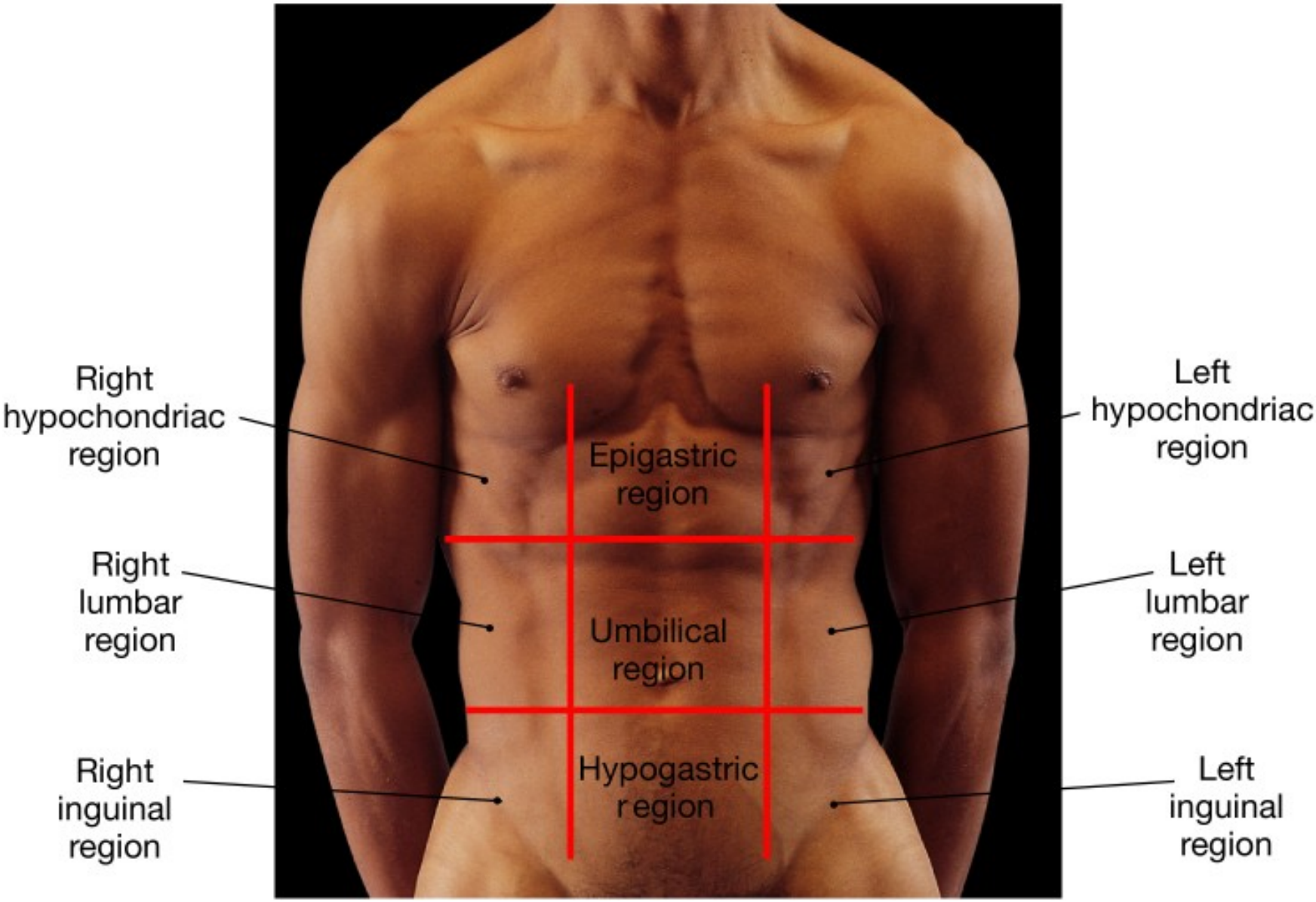
Abdominopelvic Quadrants and Regions



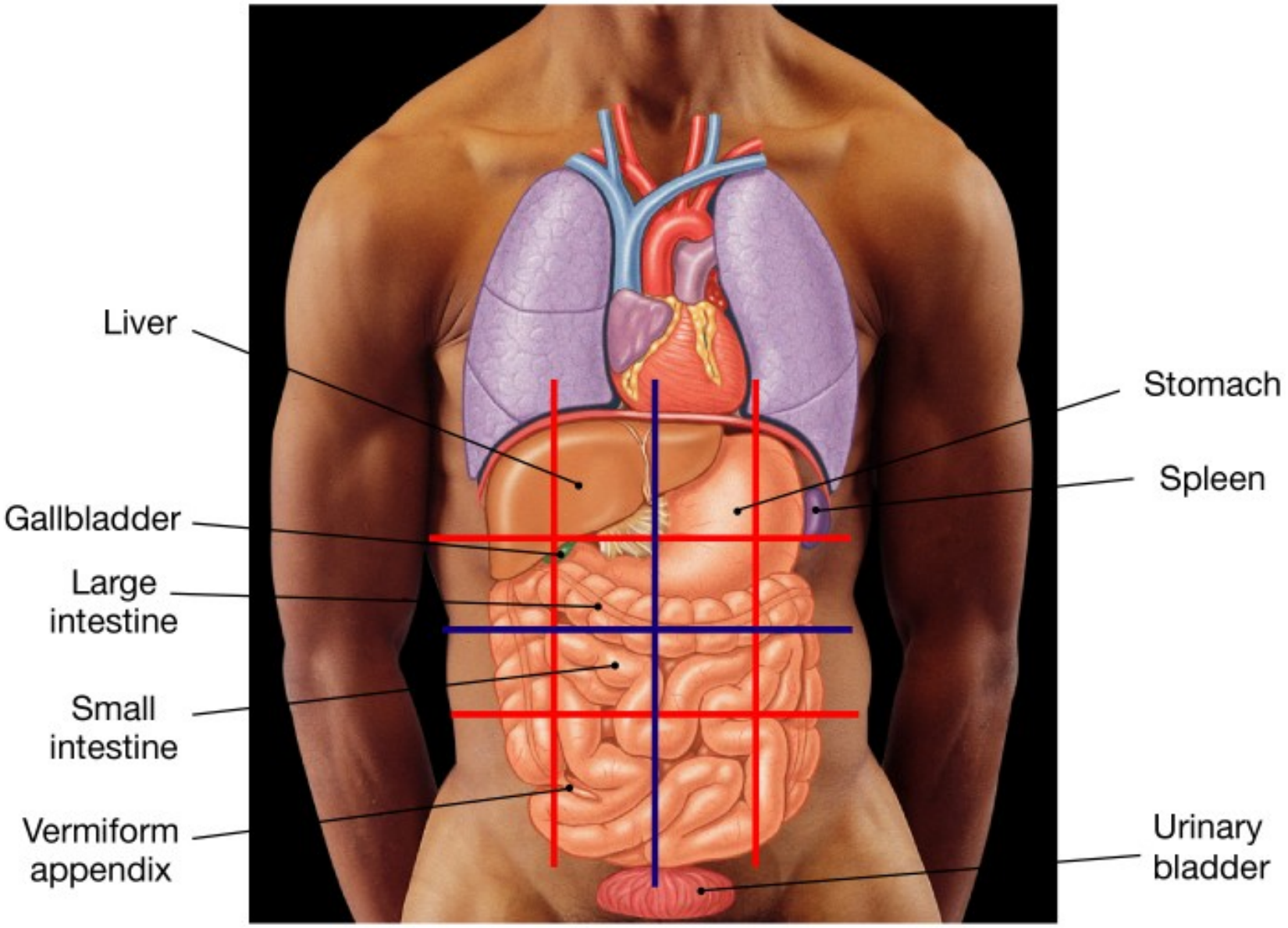
Right Upper Quadrant (RUQ):	Left Upper Quadrant (LUQ):
Right lobe of liver; gallbladder; right kidney; portions of stomach, small and large intestine	Left lobe of liver; stomach, pancreas, left kidney, spleen; portions of large intestine

Right Lower Quadrant (RLQ):	Left Lower Quadrant (LLQ):
Cecum, vermiform appendix, and portions of small intestine, reproductive organs (right ovary in female and right spermatic cord in male), and right ureter	Most of small intestine, and portions of large intestine, left ureter, and reproductive organs (left ovary in female and left spermatic cord in male)

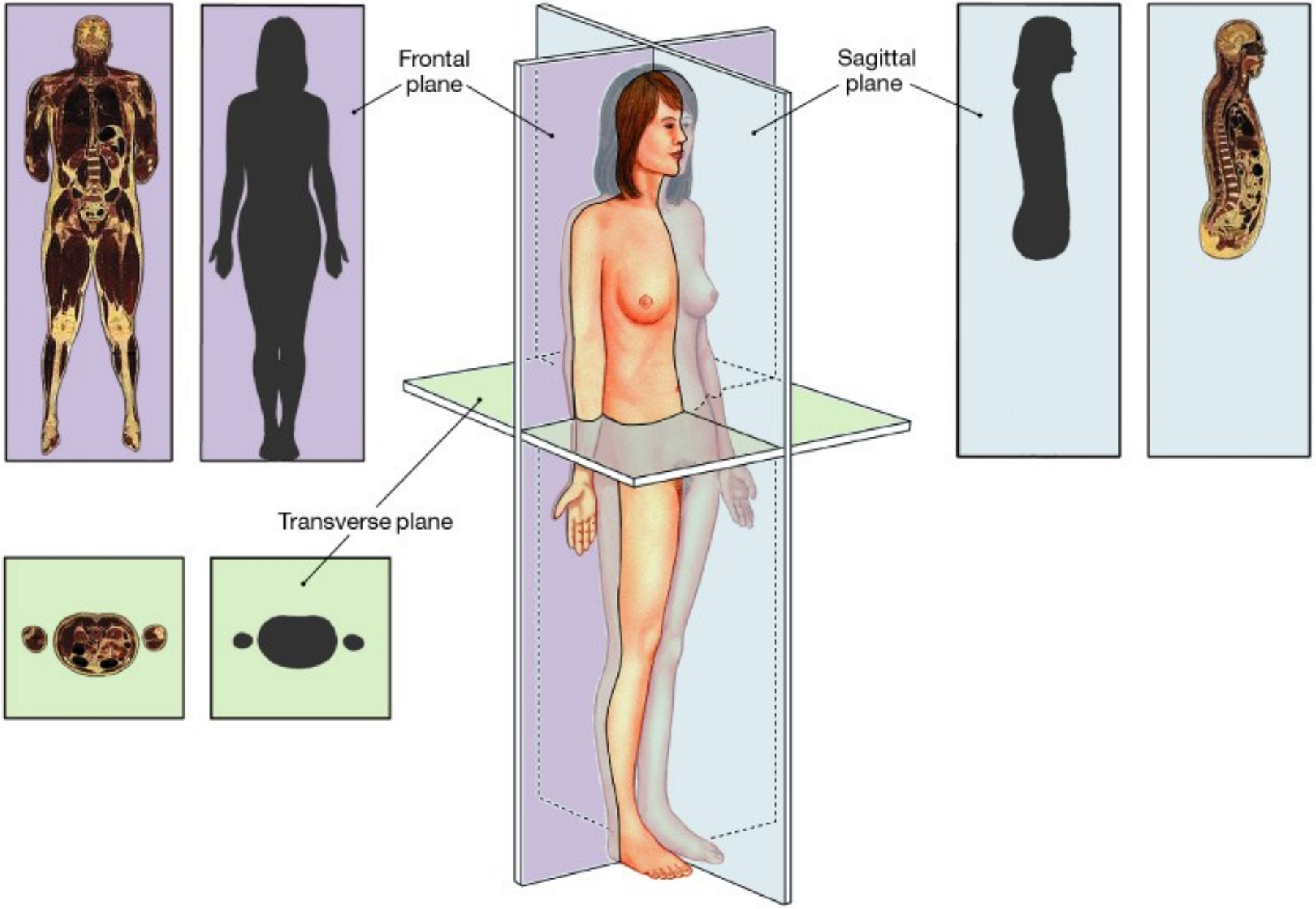
9 Quadrants


Right hypochondriac region
Epigastric region
Left hypochondriac region
Right lumbar region
Umbilical region
Left lumbar region
Right inguinal region
Hypogastric region
Left inguinal region

Structures in these Regions



Sectional Planes



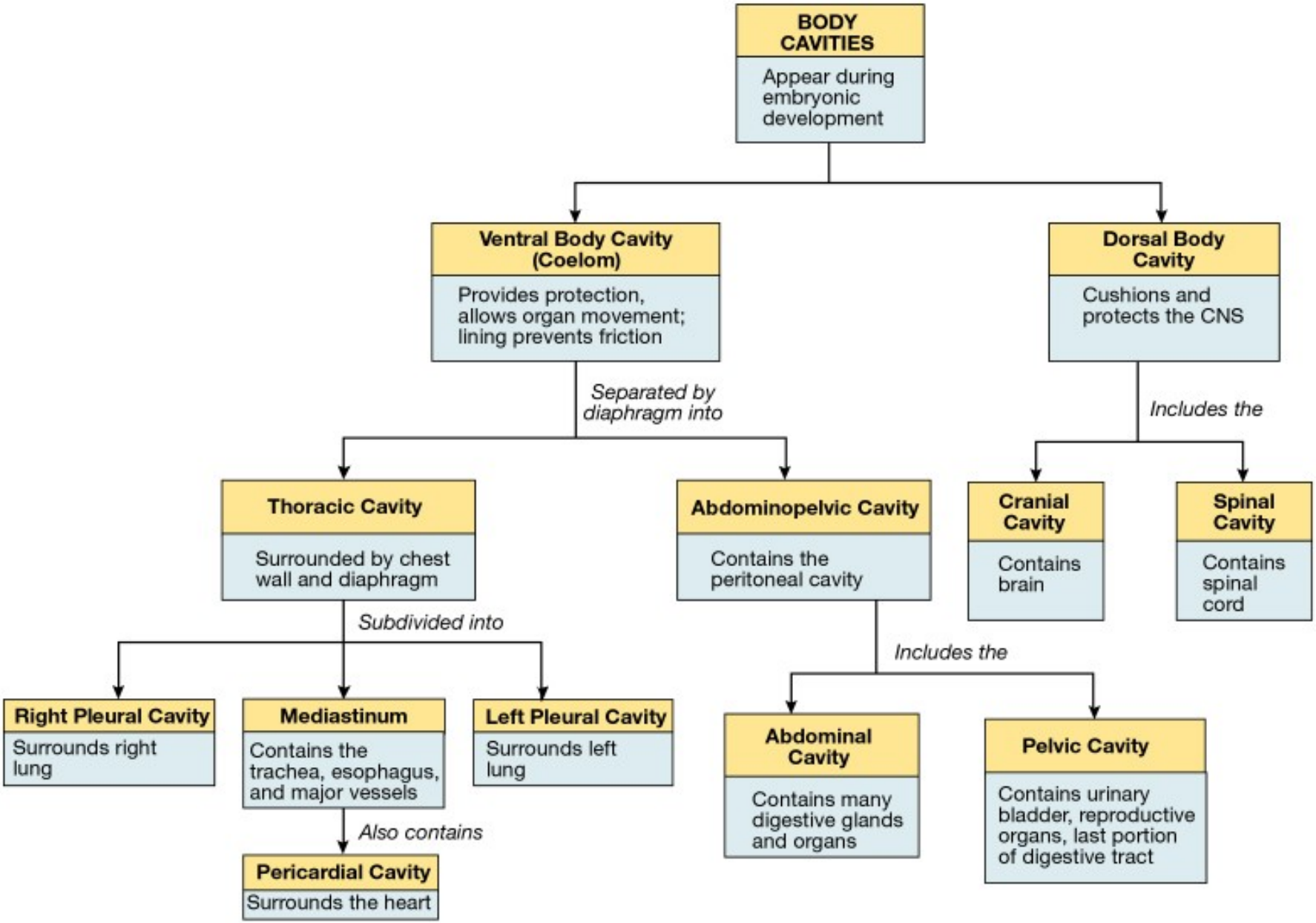
Sectional Anatomy

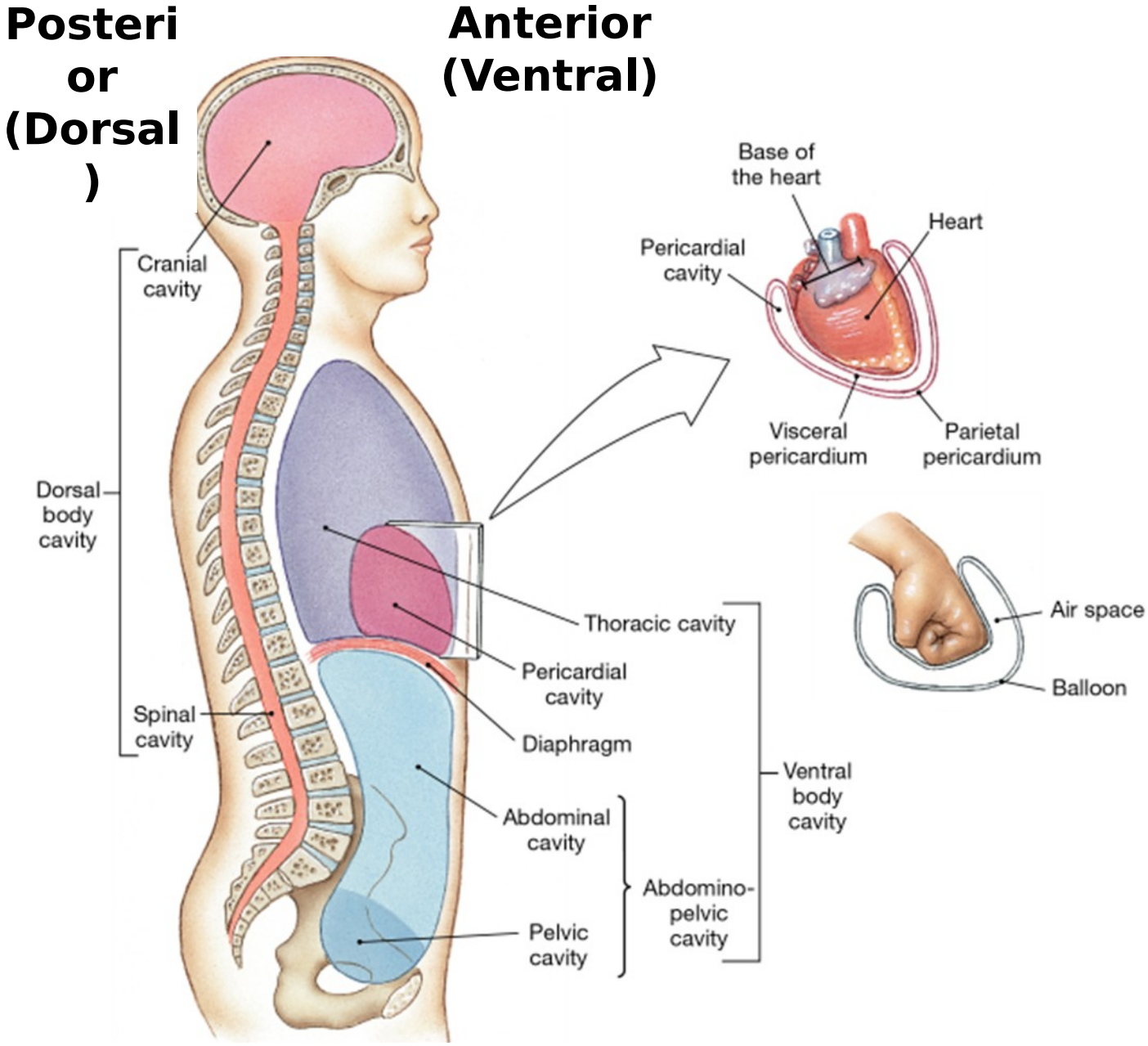
Three sectional planes

ongitudinal

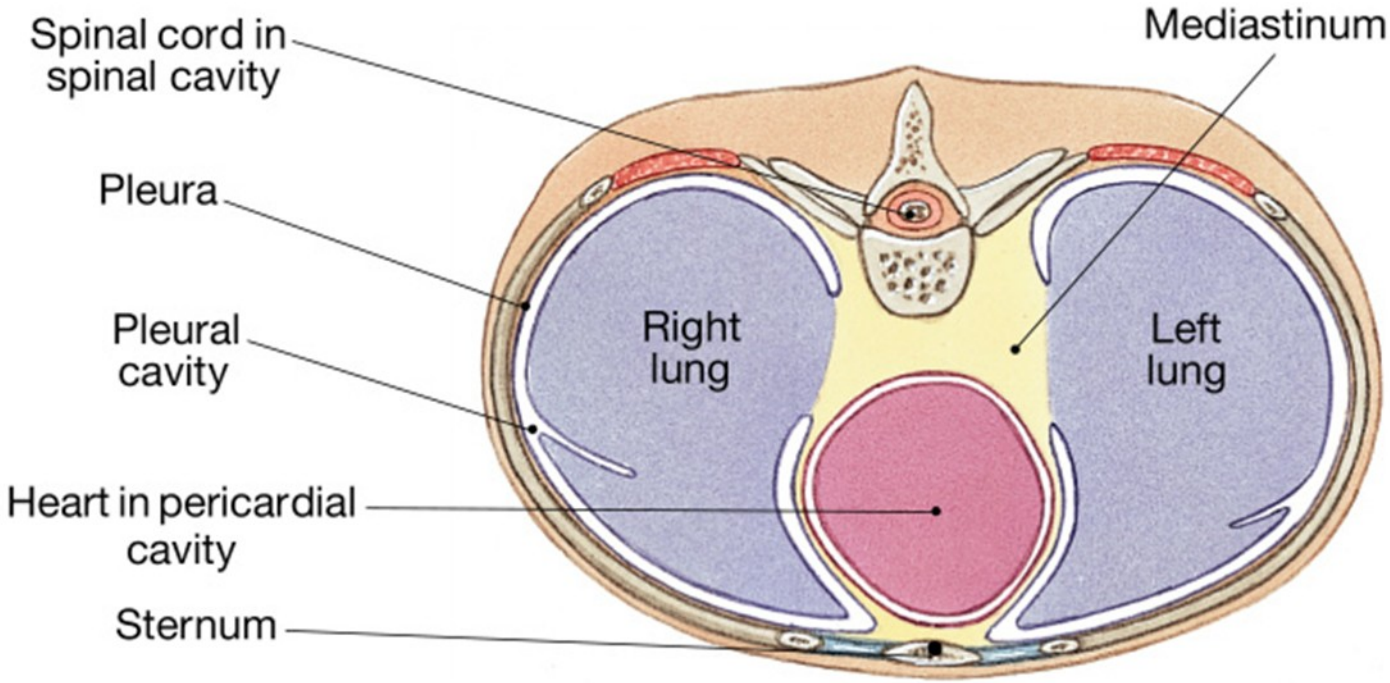
1. Frontal (Coronal) plane
2. Sagittal plane (mid- and para-)
3. Transverse (Horizontal) plane

Body Cavities




Posterior (Dorsal)
Anterior (Ventral)
Cranial cavity
Dorsal body cavity
Spinal cavity
Thoracic cavity
Pericardial cavity
Diaphragm
Abdominal cavity
Pelvic cavity
Abdomino-pelvic cavity
Ventral body cavity
Base of the heart
Heart
Pericardial cavity
Visceral pericardium
Parietal pericardium
Air space
Balloon

Sectional View



What kind of sectional view (plane) could you call the diagram above?

Dorsal Body Cavity

1. **Cranial Cavity**

   Contains the brain and CSF.

   Protects this delicate tissue.

2. **Spinal Cavity**

   Contains the spinal cord and CSF.

   Protects this delicate tissue.

Ventral Body Cavity

1. <u>Thoracic Cavity</u>

Contains:

a) Plural cavities (lungs inside).

b) Mediastinum

i) Pericardial cavity (heart).

2. <u>Abdominopelvic Cavity</u>

Contains: stomach, intestines, gallbladder,

liver, spleen, bladder, reproductive organs

Mediastinum

Contains: Heart, thymus, trachea, esophagus, vessels (aorta), nerves.

Serous Membranes - line ventral body cavities, has 2 portions:

Visceral

Parietal

A. Pleura - membrane lining the pleural cavities.

B. Pericardium - lines the pericardial cavity.

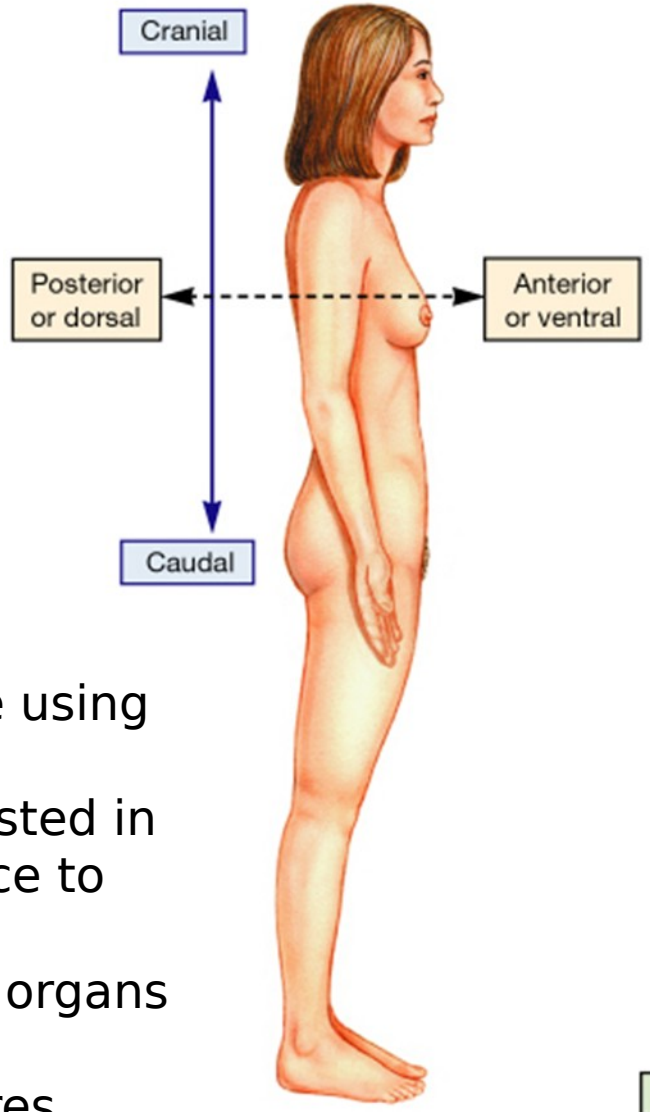
The Abdominopelvic cavity contains the **Peritoneal** cavity

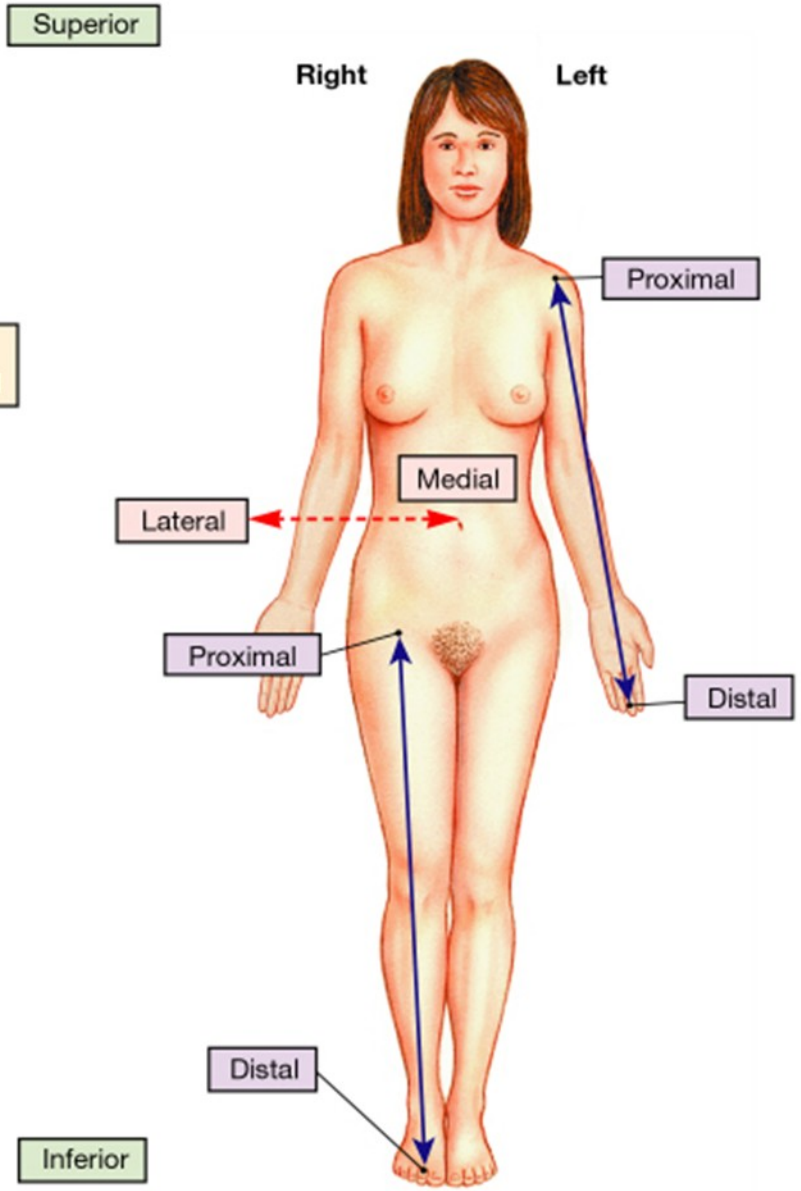
Peritoneum - lines the peritoneal cavity (this is inside the abdominal cavity).

Mesenteries - support and stabilize the

digestive organs in abdominal cavity.

Directional References





Practice using the terms listed in reference to the Various organs and structures within

Example of relative position and orientation of

a scan for clinical purposes.

Can you identify the structures shown below?